

Adolescents and the Threat of Nuclear War: The Evolution of a Perspective

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The authors briefly review recent work in the area of the impact of the threat of nuclear war on children and adolescents. They explore some of the difficulties inherent in understanding the possible effects of the threat of nuclear war on children based on their research experience in the area.

INTRODUCTION AND INITIAL STUDY

In 1977, Drs. Beardslee and Mack were asked to join the American Psychiatric Association Task Force on the Psychosocial Impacts of Nuclear Developments. As both are child psychiatrists, they were given responsibility for describing possible effects of the threat of nuclear war and the presence of nearby nuclear power plants on children and adolescents. An initial survey of the literature revealed that, although there has been considerable work from the perspective of adults [1-6], only two studies had addressed the impact of the threat of nuclear war on children. These studies, one by Sibylle Escalona [7] and another by Milton Schwebel [8], were done in the early 1960s soon after the 1961 Berlin and 1962 Cuban missile crises.

The studies differed from one another in methodology yet arrived at the same conclusion. The Escalona sample included 310 children, while the Schwebel sample was over 3,000. The Escalona study was less systematic, as the same questions for the children were not employed by different members of the study group, while the same four questions were used in the Schwebel study. Both concluded that children and adolescents were deeply worried about the possibility of nuclear war. In the Escalona study, when asked how they would like the world to be different, over two-thirds of the children spontaneously expressed wishes for world peace and concern about war and peace. In response to direct questions, in the Schwebel study 44 percent of the students reported expecting war and 95 percent expressed concern about the danger of war, some of them intensely. Surprisingly, no studies could be located that had been conducted in the ensuing 16 years on children's experience and attitudes toward the nuclear threat.

Given the lack of recent studies, the authors, with the other members¹ of the APA Task Force, developed a questionnaire to assess the attitudes of children and adolescents toward nuclear war, nuclear weapons, and nuclear power plants. In the following review, we discuss mainly findings from studies about the impact of the threat of nuclear war. Recent work has appeared on other related topics, including adults' accounts of the impact of nuclear war during their childhood [9], the attitudes of young people toward nuclear power plants [10], and the Three Mile Island accident [11]. Table 1 presents the questions asked in the initial survey.

Three samples totaling 1,143 students from public and private high schools in three cities across the country were studied with this questionnaire. The three samples were collected in 1978, 1979, and 1980. Most of those studied were adolescents and all were in school when questioned. The initial 1978 questionnaire elicited open-ended essay responses while the subsequent two questionnaires had a quantitative format.

The work [12] demonstrated that many young people were concerned about the threat of nuclear war. The individual answers of a number of the students, especially from two high schools in the Boston area in 1978, were striking and best express the depth of concern of the students. As an example, in response to the question "What does the word nuclear bring to mind?", some students said:

"Big grey clouds, pipes and smokestacks, red warning lights, dead wildlife and humans, unnecessary death and violence."

"Danger, death, sadness, corruption, explosion, cancer, children, waste, bombs, pollution, terrible devaluation of human life . . ."

"Stars, planets, space, darkness . . ."

"All that comes to mind is the world's final demise, final kind of holocaust."

In response to the question, "How old were you when you first became aware of nuclear advances, discuss what you thought then and now," some responses were:

"When I was about eight I watched the news broadcast on the anniversary of Hiroshima showing the bombing and devastation. Always through grade school we would be shown where the bomb shelter was just in case. Then I was less informed

TABLE 1
Initial Task Force Survey Questions

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1. What does the word "nuclear" bring to mind?
 2. Have you participated in any activity related to nuclear technology?
 3. How old were you when you were first aware of nuclear advances? Discuss what you thought then and now.
 4. What are the benefits and dangers of nuclear power plants in your area? How do you feel about nuclear power?
 5. How important do you feel nuclear weapons are for our national security?
 6. What do you think about civil defense? (Bomb shelters, sandbagging industries, evacuation plans?)
 7. Do you think that you could survive a nuclear attack? Your city? Your country?
 8. If a neighboring city was being held and blackmailed by a terrorist group with a powerful thermonuclear weapon, how would you feel?
 9. Have thermonuclear advances influenced your plans for marriage, having children, or planning for the future?
 10. Have thermonuclear advances affected your way of thinking? (About the future, your view of the world, time?)
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¹Other members of the Task Force were Dr. Rita R. Rogers, Dr. Jerome Frank, Dr. Doyle I. Carlson, and Dr. Michael Mufson.

and thought less on the subject, but as I learned more and more I became more and more negative towards the whole thing."

"I believe I was in junior high when I first became aware. Of course I found it terrifying that every human being in my whole world be destroyed by one bomb that our nation had first discovered. The bomb that every advanced civilization has sought to obtain. To destroy our race, to destroy people, culture, life on the earth, is essentially the outcome of the A bomb."

In response to the question, "Do you think that you could survive a nuclear attack, your city, the country?", students reported:

"I don't really think we could and even if we did the side effects from it would be awful. Remember there are still people suffering today from the effects of Hiroshima . . ."

"I personally would not care to survive a nuclear attack. The horrible effects of the radiation and the death of people important to me would be too great a thing to bear . . ."

"I think about that often. I don't really think they could survive one since I'm so close to a big city. It hasn't happened yet; let's hope and pray it doesn't."

In response to the question "Have thermonuclear advances affected your way of thinking?" some answers were:

"I think that unless we do something about nuclear weapons, the world and the human race may not have much time left."

"Yes they have. I feel that the future will be very different than the present because of nuclear advances. If nuclear energy is used right the future can be advanced technologically for the benefit of all mankind. If nuclear energy is abused and used to make weapons as is happening now the future of the world could be very dark . . ."

"In a way it has. It has shown me how stupid some adults can be. If they know it could easily kill them I have no idea why they support it. Once in a while it makes me start to think that the end of my life, my time in life, may not be as far off as I would like it to be, or want."

These responses have to be seen in relation to the time when the questionnaires were given. In 1978 it was not known whether or not children or adolescents were troubled and the eloquence and power of their responses was something of a surprise.

Quantitative analysis revealed that there was no uniformity of political opinion among these young people, and indeed very few had taken an active position on the issue. Most became aware of the nuclear threat through the media or school classes rather than conversations with parents or friends. Many (about 40 percent across the three samples) had become aware of it by the time they were 12. The responses to questions about the effect of the nuclear threat on thinking about the future, on civil defense, and on survival reflected a profound dis-ease and uncertainty about the future and a considerable amount of general pessimism. For example, in the 1980 sample, when the question was asked, "Will there be a nuclear war?" the majority of respondents thought that it was possible, and a substantial minority thought it likely.

The majority were concerned about at least some aspect of the threat of nuclear war and a number were very afraid. The respondents were relatively alone with their fears and not certain about what to do. Escalona [7] had previously raised the question of the possible impact of the nuclear threat on personality development. We

also have this concern. Questions about the continuity of existence, and doubt about whether there will be a future, as expressed in these questionnaires, might make some adolescents disillusioned and highly present-oriented rather than being willing to accept delay of gratification and to plan for the future. Furthermore, uncertainty about the future might well interfere with the formation of a stable ego ideal [12].

CRITIQUE OF THE TASK FORCE REPORT

The Task Force study represented an initial exploration to see whether there were significant concerns among children and adolescents about the threat of nuclear war as well as the hazards, real or imagined, of nuclear power. The sampling was not systematic, although a range of ages, geographic areas, and public and private school sectors were represented. The questionnaire format did not allow definite answers to many of the questions to which one would want to have answers, such as the relative importance of this issue for young people in comparison with other social and technological problems, or the variation in thinking among young people from different regions of the country. We could only speculate about the meaning of the worry these young people expressed or the impact of the threat on their current functioning or future development.

FURTHER STUDIES

Since 1977, there has been a significant increase in public debate about the nuclear issue, and in media attention to children's fears. In 1979 the accident at the Three Mile Island nuclear reactor brought home to many Americans the risks inherent in nuclear power. Moreover, policy decisions and statements by government officials which seemed to accept the possibility of nuclear war with relative complacency have led to an increase in public debate and concern about the threat of nuclear war. Many citizens both individually and in groups have become involved in the arms-control issue.

There has been increasing concern from educators and parents about the possible effects of the threat of nuclear war on children, as well as increasing attention in the media. The formation of such groups as Educators for Social Responsibility, the development of curricula and programs in response to the felt need to educate high school and junior high school students about the nuclear threat [13], and the development of children's groups opposed to nuclear war are examples of this concern. Some additional research has been conducted, although much more is needed.

Non-Systematic Opinion Surveys

Day of Dialogue In 1982 Educators for Social Responsibility [14] sponsored a day-long symposium on nuclear issues called "Day of Dialogue." Thousands of questionnaires containing questions similar to those in our initial study were distributed to high school students across the country. The results of 2,000 randomly selected responses were examined from among a larger number collected in Massachusetts, Wisconsin, Oregon, and California. Eighty-seven percent of those responding thought that there would be a nuclear war in the next 20 years and 90 percent of these reported that if such a war occurred, the world would not survive. Eighty-one percent said that the threat of nuclear war affected their hopes for the future, while 34 percent said it was having an impact on having a family or planning to get married.

Newton North High School A modified version of the Task Force questionnaire

was used by Jon Klavens, a senior at Newton North High School in Newton, Massachusetts, in April 1982 [15]. He surveyed students' attitudes some weeks after a one-day session of lectures on the topic of the nuclear threat. The questionnaire was distributed on a specified day to students in English classes by their teachers. Of the 2,500 students enrolled, 950 questionnaires were returned. All of the students responding were in attendance on that day. although, of course, not all students were enrolled in English classes.

In response to the question "Do you think that a nuclear war will occur during your lifetime?", 284 students (34 percent) indicated Yes, 114 (14 percent) No, and 429 (52 percent) were unsure. When asked about survival only 27 students (4 percent) thought their city could survive a nuclear attack, while 616 (77 percent) indicated No, and 152 (19 percent) were unsure. When asked if the threat of nuclear war was increasing, 559 (62 percent) thought it increasing, 152 (16 percent) thought it was diminishing, and 197 (22 percent) thought it about the same. The question, "Have nuclear advances affected your way of thinking about time, the future and marriage?" showed the largest impact was in the area of time: 40 percent said that it had great effect and another 20 percent some effect. Well over half felt that it had either great effect or some effect on their thinking about the future and about the world, while nuclear issues were reported to have the least impact on thinking about marriage and having children.

In response to an issue raised but not answered by our questionnaire, that is, how frequently students thought about the nuclear issue, 26 (3 percent) thought of it all the time, 67 (8 percent) very often, 263 (33 percent) often, 385 (48 percent) not very often, 56 (7 percent) never.

Systematic Sampling The best evidence about the importance of this issue from a study using rigorous sampling techniques is contained in the work of Dr. Jerald Bachman. He has generated findings in relation to the threat of nuclear war as a part of a study of adolescent attitudes toward the military and the draft [16].

Recently Bachman presented findings from surveys of students in seven consecutive graduating classes—1976–1982. Each survey was conducted during the spring. A three-stage probability sampling approach was employed and through this approximately 130 public and private high schools from 48 states were selected. Between 77 percent and 85 percent of all the students in the appropriate classes were studied and the total-by-year sample size ranged from 16,662 to 18,924. The major thrust of this work has been to define adolescents' attitudes toward the military. A series of questions were asked about the area of "monitoring the future." One question asked was "Of all the problems facing the nation today, how often do you worry about each of the following?" The first possible choice was chance of nuclear war. There has been a steady rise in the percentage of those who worried about the nuclear threat. In 1976, 19.9 percent of male seniors never worried about it, while in 1982, only 4.6 percent of the males never worried. Similarly, in 1976 7.2 percent of the male seniors said they worried about it often, while in 1982 31.2 percent did. Female high school seniors showed a similar dramatic change over the seven-year period. Another question in the series was "Nuclear or biological annihilation will probably be the fate of all mankind within my lifetime." There was a steadily increasing trend for both boys (from 23.1 percent to 35.3 percent over the seven-year interval) and girls (from 20.2 percent to 36.0 percent) to agree or mostly agree with this statement.

Dr. Scott Haas [17] studied high school students from four parochial, private, and

public schools in the Hartford, Connecticut, area and Deerfield, Massachusetts. The geographic areas were chosen because they were relatively free from intense anti-nuclear activity. One hundred questionnaires were given out at history classes. The students were informed that they were participating in "a study about the future." Sixty questionnaires were chosen from the larger group of one hundred returned with an even distribution of males and females and number of participants from the three different kinds of schools. A broad range of socioeconomic classes were included. The questionnaires contained twelve questions; the first seven were general and the last five, separated from the main body of questions, dealt with areas concerning the nuclear issue. In the final question students were asked to rank order the following concerns—economy, employment, energy, marriage, and nuclear conflict. Nuclear conflict was rated highest 24 times out of 58, more than for any other single category but certainly not a majority. Analysis of the questionnaire as a whole revealed that there was considerable faith in technology as a part of the solution to current problems. Denial was evident to Haas and a co-rater in many answers, particularly a general disbelief that people could consider rationally the use of nuclear weapons. Furthermore, Haas noted that the youngsters had an inability to conceptualize through language the reality of the threat posed by nuclear weapons. Only 12 out of the sixty respondents did not mention the nuclear threat at all in the first seven questions, but the general mood reflected greater concern with other issues such as technology, economy, and employment.

Interview Study

Lisa Goodman [18], working in collaboration with Drs. Mack and Beardslee and Roberta Snow, conducted an in-depth interview of adolescents in the Boston metropolitan area.

Teachers, parents, and counselors helped Ms. Goodman locate high school students during July and August of 1982. Seventeen girls and 14 boys ranging in age from 14 to 19 were interviewed. They represented a wide range of religious and socioeconomic backgrounds. Ten had taken a course or section of a course on nuclear weapons and/or the history of the arms race. The others had rarely, if ever, been exposed to such material in school. All interviewees were asked the same questions, and the interview lasted between three-quarters of an hour to an hour and a half.

The stated aim of the interviews was to elicit the perceptions and responses of these teenagers to the threat of nuclear war and to try to determine in greater depth than is possible through surveys how these young people were dealing with the threat. A second aim was to learn the political attitudes and ideas of these adolescents about possible solutions to the nuclear deadlock. The interviews were transcribed and analyses for common themes were separately conducted by Goodman and Mack.

Reading the transcripts of these interviews makes more immediate and real the fears young people express about the threat of nuclear war. Although some students reported trying not to dwell on it, while others claim they worry about it constantly, all of the 31 adolescents asserted that the existence of nuclear weapons impinges on their lives on a daily basis. They report being reminded of the arms race when they read the papers or watch television and that there is a constant worry in the back of their minds. These teenagers say they are afraid every day that nuclear annihilation will come, if not right away, then in a relatively short time. Some have planned to

move away from the cities because of the threat; a few have decided not to have children, and they say that the threat of nuclear war has forced them to live more in the present. Young people report various ways of trying to shut out their thoughts about this matter. Some claim that the nuclear threat is responsible for their excessive use of drugs. A few cope with the arms race by refusing to lapse into helplessness and have chosen to take the course of political action.

As with all earlier samples most of these youngsters do not advocate unilateral disarmament and, given the current international political situation, feel that some nuclear weapons are necessary. However, a deep discouragement, a sense of things being out of control, pervades their perceptions of the arms race; they draw no sense of security or safety from the presence of the weapons. One student explained his helplessness this way:

I don't have the power to control, to say whether to have bombs or not, I don't have the control to say whether we make nuclear weapons or not . . . I don't know what kind of thing would happen, but at any minute there goes the war. It scares me a lot, this kind of emptiness, this kind of hollowness, like being in a tunnel and having to fight and nothing is around you and you're clawing at everything trying to find something. That's the kind of feeling.

The students did not take an actively nationalistic point of view, claiming that the United States is right and Russia is wrong. In general responsibility for the arms race and the current impasse is nearly equally assigned to the two superpowers, who are seen as locked in a blind, selfish struggle. Similarly, there is much questioning of the leadership in this country and in Russia.

Critique of Subsequent Studies

The Newton North study, the Day of Dialogue questionnaires, and the interview study cannot be seen as representative of students in high schools across the country. They do not control for the effect of geographic bias, as nuclear issues may be more prominently debated or be a greater matter of concern in some areas of the country than others. Furthermore, participation in either the Newton North or the Day of Dialogue surveys was voluntary and at least to some extent reflected the students' interest and/or concern about the nuclear problem. Although an effort was made to reach all teenagers from a variety of backgrounds and political experience in the interview study, there was also some self-selection based on interest in the subject. Since only 31 subjects were interviewed, the effect of sample selection may be quite large. Another possible source of bias is the fact that the queries in the Newton North, Day of Dialogue, and interview study, as well as the Task Force Study, all ask specifically about the threat of nuclear war, and/or nuclear power, to the exclusion of other topics. Thus it was quite clear to the respondents what the researchers were interested in learning. The subjects may have complied to please the investigators. Also, questions about other areas might have elicited a more hopeful view of some aspects of the future. On the other hand, some respondents have indicated concerns in this area that they would not have expressed if the nuclear issue had been imbedded in more general questions among several possibilities.

The Bachman study, the most systematic in its sampling approach, does give

evidence on two important points. First, the absolute percentage of young people concerned about the nuclear threat has definitely increased since 1976. Second, a substantial minority of students (about 30 percent) did seem worried about the likelihood of nuclear annihilation. However, the majority did not. This study is free of the possible biases of the other studies. As it is far less detailed in its inquiries about areas of concern to investigators of the nuclear issue, such as planning for the future or the effect on current life style, no conclusions about these areas can be drawn from it at present. Further exploration of this valuable set of data is expected, which may shed light on the question. Haas's study concludes that a substantial minority in a carefully chosen sample are quite concerned, but also indicates that most students do not see it as their primary worry.

NEED FOR FURTHER STUDIES

Our review suggests that the serious study of the impact of the threat of nuclear war on young people is only beginning. Work to date does indicate that this is a substantial area of concern for an as yet undetermined percentage of young people in this country and that the fraction of those concerned is increasing. With others [19], we think much further investigation is needed. More surveys of systematically chosen large samples using quantitative measures or indicators are required. These should focus not only on whether youngsters are worried or afraid but how concerned they are in comparison to other worries and what they see as the possible impact of the nuclear threat on their lives and daily functioning. Questions about the future unrelated to the nuclear threat should also be presented. Detailed studies are needed about how youngsters' attitudes about nuclear questions develop. Our initial questionnaires indicated that children and adolescents became concerned about this issue primarily through the media or school. As parents have become increasingly involved, however, and more young people are discussing these issues with them, the impact of parental attitudes on their children's experience of the nuclear threat has become a matter of greater interest. Both interview and questionnaire studies are needed.

Review of the Authors' Experience: Complexities and Troubling Emotions We believe a review of our own experience in trying to understand the possible impact on children and adolescents of the threat of nuclear war may prove useful to others working in this field. We have focused on two areas: the complex problem of trying to separate out the influence of this issue from other issues and the troubling feelings, the pain and sadness for those working on this problem.

Complexities

No study has yet demonstrated actual diagnosable psychopathology as a direct result of the threat of nuclear war nor has even attempted to demonstrate it. In our experience, the fields of child psychiatry and child psychology lack models for understanding the impact of children's and adolescents' responses to domestic politics and threatening international realities. How fears, such as that of a nuclear war, may affect their immediate or long-term functioning or personality development simply remains not understood at present.

Some contemporary political and social events perhaps provide partial analogies. The effect on adults and their families of job loss is one example [20-23]. It is certainly related to disillusionment and a foreshortened sense of the future. From a dif-

ferent perspective it has become evident that sudden, traumatic experiences like the Chowchilla kidnapping do have significant long-term effects on otherwise healthy children [24]. Finally, there is conclusive evidence of the major impacts of a social and cultural phenomenon that has emerged in the last twenty-five years, namely television. Television has been shown to have significant effect on the attitudes and expectations of children, on how they view the world and on their behavior [25-28]. Certain selective programs have been shown to enhance learning [29] while exposure to repetitive television violence has definitely been shown to be harmful both to children and their families [30].

None of the above is of more than limited help in our effort to understand the impact of the threat of nuclear war. The effects of job loss are profound but job loss is an actual, concrete event in the child's and family's life, and it involves actual as well as imagined losses. As will become evident, we do think that there is an aspect of the reaction of adolescents in becoming aware of the nuclear threat that is like a sudden traumatic event but such an experience is certainly not the same as the actual trauma of kidnapping. The overall effect of television itself demonstrates that this change in the technology of the culture has had a powerful effect on children. However, television's influence as a whole is so broad that it is impossible to make any direct comparisons between its impact and that of the threat of nuclear war. Nonetheless, as television is surely a medium for exposure to news and information on the nuclear issue and as many youngsters become aware of the nuclear issue through television, the study of television in relation to this issue may well prove fruitful in the future.

Characteristics of the Issue

The nuclear issue is immediate, rapidly changing, and has provoked a polarization of political viewpoints. This makes it difficult to obtain the necessary distance and objectivity to evaluate its effect fully and to understand adolescent concerns. There are distinct characteristics of this issue which set it apart from other social and political problems. The nature of the threat of nuclear war is at the same time both abstract, outside of the personal experience of adolescents, yet overwhelming in its horror and scale. Only twice has a nuclear weapon actually been used, on Hiroshima and Nagasaki. At no time has a large-scale nuclear war taken place. There is substantial disagreement among experts on what the consequences of such a war would be. To contemplate the threat of nuclear war requires an act of the imagination which is difficult, if not impossible, for most adults. It requires the young person to venture into an unknown and uncertain territory, into which many of the adults around him will not travel.

There has been an understandable though unfortunate tendency on the part of adults and society as a whole to keep these matters secret [31]. Nuclear weapons were initially developed during World War II, when debate was not possible. The prevailing attitude since then has been that further weapon development was largely a matter best left to scientific experts. It is not correct simply to attribute this silence to governmental policy. The subject is so painful, frightening, and seemingly technically impenetrable that most adults have chosen to deal with it by denial and avoidance. Until recently there has been a virtually total lack of public discussion of nuclear weapons issues.

Understanding the impact of the nuclear threat is complicated by the fact that the issue is but one of several complex, rapidly changing forces operating in our modern industrial society. Some of the attitudes and concerns which have emerged from

questioning young people about the threat of nuclear war are pessimism about the future, fear, hopelessness, and the need to live in the present. These psychological phenomena probably are related to other factors as well. Such factors are the growth of technology itself, the changing patterns of family structure, broad disillusionment with the political system as evidenced by decreasing rates of voter participation, declining American prestige and power in foreign relations, and economic woes. It is difficult to separate in the studies conducted to date the role of the nuclear threat from these other social problems in explaining such pessimism and uncertainty.

Feelings Engendered in the Investigator

To work with the subject of nuclear annihilation is painful and difficult for everyone—researcher, clinician, parent, or child. We were repeatedly reminded of this during our work on the Task Force. To consider seriously the possibility of nuclear war is to contemplate the destruction of life as it exists on the earth. It means the end not only of one's own life, but of the lives of everyone we love, indeed of all relationships which exist, possibly forever. It is a horrifying idea, the vision of a holocaust unlike anything the planet has known. Moreover, it is not clear that any one citizen can do very much by himself about the problem, so that there is an attendant helplessness as one confronts its reality. Thinking a nuclear war will occur obviates thinking about the future. Thinking about children and nuclear war is a particularly difficult task. Children—one's own or anyone else's—are far more vulnerable than adults to the effects of nuclear war. Their futures are potentially longer; their own children are yet to be born. Their genes, bones, and other tissues are more susceptible to the effects of radiation. Another part of the difficulty in achieving full awareness of the nuclear issue is the pain of realizing that one is potentially both victim and perpetrator of nuclear violence: victim because there is so little control over the weapons; perpetrator because those of us who are United States or Soviet citizens are members of countries that are spending huge amounts in tax dollars to build instruments of destruction whose sole possible use is to annihilate large portions of the human race. It is difficult for anyone to think about these matters. Beyond this, it is disturbing to think that the threat of nuclear war and the presence of nuclear power plants in and of themselves might be having an impact on our children's development.

We do not wish to overdramatize the problem but to raise an issue which is something like countertransference in psychotherapy and psychoanalysis, the deeper thoughts and feelings which are evoked in the clinician by the case material before him. Such troubling emotions provide one of the major reasons that so little work has been done in this area.

Furthermore, the subject itself, precisely because it is so painful and yet so politically controversial, is inherently divisive. On the Task Force we found ourselves often arguing or in conflict over minor details or wording. This was due not to a lack of good intentions, or to the personalities involved, the authors became convinced, but was the result of the inherently troubling, and emotionally and politically divisive nature of this issue.

Implications

Our consideration of the difficulties found in undertaking work in this area is not meant to discourage research. Rather, we wish to urge caution about generalizing from limited findings, or, once having identified the concern of youth, in

prematurely reaching a conclusion about its meaning. The need for conceptual models which can better enable us to relate feeling and thought to social and political actualities is evident.

Our own work has led us to the belief that the issue of adolescent trust is central to understanding how the nuclear threat may have an impact. We think that future research should focus particularly on the stage of adolescence and the related issue of trust in the future and pessimism. Yankelovich [32], Offer [33], and others have argued that the current generation of adolescents is considerably less hopeful and more pessimistic than previous ones. We have the impression that at least some of this generation of young people are traumatically confronted by the threat of nuclear war even as they emerge into a broader awareness of the larger world [16]. Their aloneness with the threat is part of its impact; they feel especially helpless as they see that neither they nor the adults around them are in control or command of the weapons. We are concerned that this may seriously limit their willingness to plan and prepare for the future, may encourage them in more present-oriented directions, and erode their fundamental faith in the society and adults around them.

The pain and difficulty connected with undertaking this subject needs to be addressed by anyone who is involved in working with the issue. One must confront and work through one's own feelings before beginning to study the problem or to help others. Learning the basic facts about nuclear devices and power plants, and experiencing the grief and personal struggle with the pain and powerlessness, are part of this process. In our experience, the pain and terror are so intense and difficult to handle that it is virtually impossible to work alone. Certainly a similar working through has been necessary for those researchers or clinicians dealing with other disturbing human situations. Inevitably, those who work with dying patients have had to explore their own attitudes toward death and dying [34,35]. Understanding the feelings evoked in treating the survivors of the Holocaust has proved essential for the therapists working with these individuals [36].

Others [37,38] have recently stressed the implications for mental health professionals of the impact of the nuclear threat so that a detailed review based on our experience is not indicated. As is evident, we do believe that a professional person must have worked through some of the pain and horror stirred up by the threat of nuclear war for himself/herself before trying to help others with it.

Perhaps the most important observation of our work in this regard is that one has to ask children or adolescents specifically about the nuclear threat in order to find out what they think and feel about it. This by no means implies that it should be asked, as in most clinical situations it may be quite inappropriate to inquire. However, if the nuclear issue is not brought up spontaneously by young people it is incorrect to conclude that they are not worried or concerned about it.

Implications for Working with Parents

In our experience, the following principles have proved useful in helping professionals who work with parents.

It is important both to reassure parents who ask about their children that the handling of any one concern, even the threat of nuclear war, will not make or break their relationship with their children.

It is essential in advising parents to assist them in becoming aware of the developmental stage, and capacity for thinking about the future, of their child. Recent work of Eric Chivian and Roberta Snow [39] suggests that quite young children (seven-year-olds) can be frightened about this issue. Nonetheless, they lack the

cognitive ability to think about the future in ways similar to adults. Their thoughts are concrete, and what will be reassuring to them is very different from what will be reassuring to a 17-year-old. More direct reassurance is indicated with younger children.

When possible, it is helpful for the parent, just as for the mental health professional, to deal with some of the pain before broaching the subject with his or her children.

Children differ greatly in the degree of their concern about the threat of nuclear war. The first step for the parent should be to become aware of what, if any, concerns the child has about this issue. How one would initiate dialogue with a child who does not know anything about the nuclear threat is entirely different from how one discusses it with a youngster who is already worried about it. In our experience, almost all adolescents are aware of the nuclear threat and many are worried, while among younger children the degree of awareness is highly variable.

CONCLUDING STATEMENT

Our fundamental experience has been that when children and adolescents are specifically questioned about the nuclear threat, a substantial number do indicate that they are worried and afraid. It is not possible from the available evidence to know what percentage of youngsters are deeply concerned about the threat of nuclear annihilation but all studies agree that some children and adolescents are. The problem of understanding what impact this worry and fear have on the personality development and daily lives of young people is complex. More research is much needed. Balanced, careful investigation can only take place with the recognition of the pain and difficulty for the researcher in studying the possible effects of the threat of nuclear war on children. Working through the troubled emotions engendered by the nuclear threat is necessary for researchers, teachers, parents, or mental health professionals as they try to help their colleagues, patients, friends, and children confront this issue.

REFERENCES

1. Lifton RJ: *Death in Life*. New York, Vintage Books, 1967
2. Lifton RJ: Psychological effects of the atomic bomb in Hiroshima: The theme of death. In *The Threat of Impending Disaster*. Edited by G Grossler, H Wechsler, M Greenblat. Boston, MIT Press, 1964
3. Marmor J: War violence and human nature. *Bulletin of the Atomic Scientists* (March):19-22, 1964
4. Menninger RW: Attitudes toward international crisis in relation to personality structure. In *Human Reactions to the Threat of Impending Disaster*. Edited by G Grossner, H Wechsler, M Greenblat. Boston, MIT Press, 1964
5. Frank J: *Sanity and Survival: Psychological Aspects of War and Peace*. New York, Vantage Books, 1967
6. Group for the Advancement of Psychiatry: *Psychiatric Aspects of Nuclear War*. Report 57. New York, Mental Health Materials Center, 1964
7. Escalona S: Children and the threat of nuclear war. In *Behavioral Science and Human Survival*. Edited by M Schwebel. Palo Alto, Science and Behavioral Books Inc, 1965
8. Schwebel M: Nuclear cold war: Student opinion and professional responsibility. In *Behavioral Science and Human Survival*. Edited by M Schwebel. Palo Alto, Science and Behavioral Books Inc, 1965
9. Carey M: Growing up in the nuclear age. *Bulletin of the Atomic Scientists*: 36-42, 1983
10. Luskin J, French CS, Skrable KW, et al: Radiation and life. Presented at the Health Physical Training Thirteenth Mid-Year Tropical Symposium. Honolulu, Hawaii, December, 1979
11. Schwebel M, Schwebel B: Children's reactions to the threat of nuclear plant accidents. *Amer J Orthopsychiatry* 51(2):260-270, 1981

12. Beardslee W, Mack JE: The impact on children and adolescents of nuclear developments. In *Psychosocial Aspects of Nuclear Developments*, Task Force Report Number 20. Washington, DC, American Psychiatric Association, 1982
13. *Decision Making in a Nuclear Age*. Edited by C Austill. Weston, MA, Halcyon House, 1983
14. Roberta Snow, personal communication
15. Jon Klavens, personal communication
16. Bachman J: American high school seniors view the military 1976–1982. *Armed Forces and Society*, in press
17. Haas S: Presentation at Beth Israel Hospital, January 13, 1983
18. Goodman L, Mack JE, Beardslee WR, et al: The threat of nuclear war and the nuclear arms race: Adolescent experience and perceptions. *Political Psychology*, in press
19. Smith B: The threat of nuclear war: Psychological impact. Address at the Physicians for Social Responsibility Symposium, Eugene, Oregon, October 9, 1982
20. Brenner MH: *Mental Illness and the Economy*. Cambridge, MA, Harvard University Press, 1973
21. Brenner MH: Estimating the Social Costs of National Economic Policy: Implications for Mental and Physical Health and Criminal Aggression. Joint Economic Committee, US Congress, Paper Number 5. Washington, DC, US Government Printing Office, 1976
22. Draughton M: Relationship between economic decline and mental health hospital admissions continues to be significant. *Psychology Reports* 36(3):882, 1975
23. Group for the Advancement of Psychiatry: *Job Loss—A Psychiatric Perspective*. New York, Mental Health Materials Center, 1982
24. Terr L: Psychic trauma in children: observations following the Chowchilla school bus kidnapping. *Amer J Psychiatry* 138:14–19, 1981
25. Comstock G, Chaffee S, Katzman W, et al: *Television and Human Behavior*. New York, Columbia University Press, 1978
26. Singer JL, Singer DC: *Television Imagination and Aggression: A Study of Preschoolers*. Hillsdale, NJ, Lawrence Erlbaum Associates, 1981
27. Adler RP, Lesser GS, Meringoff LK, et al: *The Effects of Television Advertising on Children*. Lexington, MA, Lexington Books, 1980
28. Group for the Advancement of Psychiatry: *The Child and Television Drama: The Psychosocial Impact of Cumulative Viewing*. Publication 112. New York, Mental Health Materials Center, 1982
29. Singer JL, Singer DG: Can TV stimulate imaginative play. *J of Communication* 26:74–80, 1976
30. National Institute of Mental Health: *Television and Behavior: Ten Years of Scientific Progress and Implications for the Eighties*. Volume I. Washington, DC, US Dept of Health and Human Services, 1982
31. Carson DI: Nuclear weapons and secrecy. In *Psychosocial Aspects of Nuclear Developments*, Task Force Report Number 20. Washington, DC, American Psychiatric Association, 1982
32. Yankelovich D: Changing social values. Research Workshop in Preventive Aspects of Suicide and Affective Disorder in Young Adults. Boston, Harvard Medical School and Harvard School of Public Health, December 3, 1982
33. Offer D: Adolescent self-image: Empirical studies and theoretical implications. Cambridge Hospital Symposium on Self-Esteem. Boston, December 10, 1982
34. Weisman AD: On dying and denying: A psychiatric study of terminality. New York, Behavioral Publications, 1972
35. Kubler-Ross E: *On Death and Dying*. New York, MacMillan, 1970
36. Bergmann M: Recurrent problems in the treatment of survivors and their children. In *Generations of the Holocaust*. Edited by M Bergmann. New York, Basic Books, 1982
37. Escalona S: Growing up with the threat of nuclear war: Some indirect effects on personality development. *Amer J Orthopsychiatry* 52(4):600–607, 1982
38. Schwebel M: Effects of the nuclear war threat on children and teenagers: Implications for professionals. *Amer J Orthopsychiatry* 52(4):608–618, 1982
39. "There's a nuclear war inside me": Videotape. Cambridge, MA, Intersections Co, 1982